

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/GB 03/03244

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D211/46 C07D405/06 C07D401/06 C07D413/06 A61K31/445  
A61P3/00 A61P35/00 A61P9/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data, BEILSTEIN Data, INSPEC

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, A	WO 02 055498 A (BUTTERS TERENCE D ; OXFORD GLYCO SCIENCES UK LTD (GB); UNIV OXFORD ()) 18 July 2002 (2002-07-18) cited in the application claims page 21 -page 22; examples 9,10 page 24 -page 26; examples 13-15 --- -/--	1-30



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

## \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- "&" document member of the same patent family

Date of the actual completion of the international search

11 November 2003

Date of mailing of the international search report

20/11/2003

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Stix-Malaun, E

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>BARILI, PIER LUIGI ET AL: "Rare and complex saccharides from D-galactose and other milk derived carbohydrates. 7. Double reductive amination of L-arabino-hexos-5- uloses: a diastereoselective approach to 1-deoxy-D-galactostatin derivatives" TETRAHEDRON (1997), 53(9), 3407-3416 , XP004105422 abstract page 3409; examples 14-17 page 3407, paragraph 1</p>	1-30
A	<p>MEHTA G ET AL: "A norbornyl route to azasugars: a new synthesis of deoxynojirimycin analogues" TETRAHEDRON LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 41, no. 30, 22 July 2000 (2000-07-22), pages 5741-5745, XP004209550 ISSN: 0040-4039 abstract page 5743; example 17</p>	1-30
A	<p>MERRER LE Y ET AL: "SYNTHESIS OF AZASUGARS AS POTENT INHIBITORS OF GLYCOSIDASES" BIOORGANIC &amp; MEDICINAL CHEMISTRY, ELSEVIER SCIENCE LTD, GB, vol. 5, no. 3, March 1997 (1997-03), pages 519-533, XP001062185 ISSN: 0968-0896 abstract page 521; table I</p>	1-30
A	<p>POITOUT L ET AL: "Synthesis of Azasugars.Part 1 Isomerization of Polyhydroxylated Piperidines" TETRAHEDRON LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 37, no. 10, 4 March 1996 (1996-03-04), pages 1609-1612, XP004030006 ISSN: 0040-4039 abstract page 1609; examples 2A-4A</p>	1-30

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## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1-30(part)  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:  
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-30(part)

Present claims 1-30 relate to compounds defined by reference to a desirable characteristic or property, namely "prodrug" and "protecting group".

The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compounds by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the compounds according to formulae (I) or (III). With respect to the compounds of formula (III) the structural definitions of the description have been taken into account.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

Internat Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 02055498	A	18-07-2002	CA 2433675 A1	18-07-2002
			WO 02055498 A1	18-07-2002
			WO 02055064 A2	18-07-2002